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AKROMID®
B3 GF 40 5 black (7286)

PA6 GF40

AKROMID® B3 GF 40 5 black (7286) is a 40% glass fiber reinforced polyamide 6. It is characterised by a very high stiffness and strength. Furthermore, the material is high heat stabilised and therefore perfectly suitable for technical parts which are used at elevated temperatures in industrial engineering and in the automotive industry. As successor AKROMID® B3 GF 40 5 black (8636) was delevoped, to meet the stringent UV stability requirements for outdoor applications.

Features

heat stabilised 160

Properties

Modulus	Strength	Impact
12.500 MPa	**200** MPa	**95** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**12500 MPa** **8000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**200 MPa** **129 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**3 %** **5,4 %**
Flexural modulus ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**12300 MPa** **7500 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**310 MPa** **200 MPa**
Flexural strain at break ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**3,3 %** **5,5 %**

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Charpy impact strength ISO 179-1/1eU	23°C | d.a.m.	**95 kJ/m²**
	23°C | conditioned	**103 kJ/m²**
	-30°C | d.a.m.	**92 kJ/m²**
	-30°C | conditioned	**96 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m.	**16 kJ/m²**
	23°C | conditioned	**24 kJ/m²**
	-30°C | d.a.m.	**13 kJ/m²**
	-30°C | conditioned	**14 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**215 °C**
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	**220 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**220 °C**

Flammability

Flammability UL 94	1,6 mm Wall thickness	**HB Class**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	**+**

General Properties

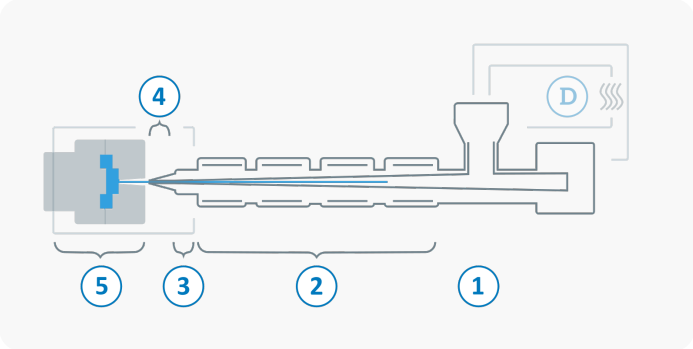
Density ISO 1183	23°C	**1,45 g/cm³**
Molding shrinkage ISO 294-4	flow	**0,1 - 0,3 %**
	transverse	**0,5 - 0,7 %**

Rheological Properties

Flowability AKRO	2 mm Thickness	**480 mm**

Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	0 - 4 h
	Drying temperature (τ <= -30°C)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	240 - 290 °C
3	Nozzle temperature	260 - 300 °C
4	Melt temperature	270 - 290 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min